# Economic Impact Study

Los Angeles County Economic Development Corporation

# High-Speed Rail
# Heavy Maintenance Facility
# in Kern County

**Gregory Freeman and Christine Cooper**



This report was prepared by the Economic and Policy Consulting Practice of the Los Angeles County Economic Development Corporation (LAEDC).

As the Southern California region's premier economic development organization, the mission of the LAEDC is to attract, retain and grow businesses and jobs in the regions of Los Angeles County.

The LAEDC Consulting Practice offers unbiased, fee-based custom economic and policy research for public agencies and private firms. The Consulting Practice focuses on economic impact studies, regional industry analyses, economic forecasts and issue studies, particularly in water, transportation, infrastructure and environmental policy. Projects are selected based on their relevance to the *L.A. County Strategic Plan for Economic Development* and the potential for the research to shape policy that supports the LAEDC mission.

# Summary of Findings

The California High-Speed Rail Authority is evaluating several sites for a heavy maintenance facility, including two sites in Kern County: one in the city of Wasco, the other in Shafter. The establishment of such a facility in Kern County would generate employment opportunities and economic activity, first during the initial construction and then during its ongoing operations. It is unlikely, however, that the facility would stimulate additional local and regional activity through supporting industries.

### *Initial Construction*

The Kern County Construction Services Division estimates that total development costs will range from $255.8 to $349.3 million. We anticipate that some of the spending will leak out of Kern County and will not have a local economic impact, and we adjust our estimates accordingly. The total one-time economic impact, which includes direct, indirect and induced activity generated by construction of the facility in Kern County is shown below.

**High-Speed Rail Heavy Maintenance Facility in Kern County**
**Total One-Time Economic Impact of Initial Construction**

| | Low Range | High Range |
|---|---|---|
| Output ($ millions) | $ 231.0 | $ 329.3 |
| Employment (jobs) | 1,520 | 2,170 |
| Labor Income ($ millions) | $ 92.2 | $ 132.1 |
| State and local taxes ($ millions) | $ 7.5 | $ 10.7 |

Sources: Kern County Administrative Office; LAEDC

### *Annual Operations*

The facility is expected to employ 1,500 workers when operating at full capacity. The total annual economic impact, which includes direct, indirect and induced activity, of ongoing operations of the heavy maintenance facility at full operating capacity is shown below.

**High-Speed Rail Heavy Maintenance Facility in Kern County**
**Total Annual Economic Impact**

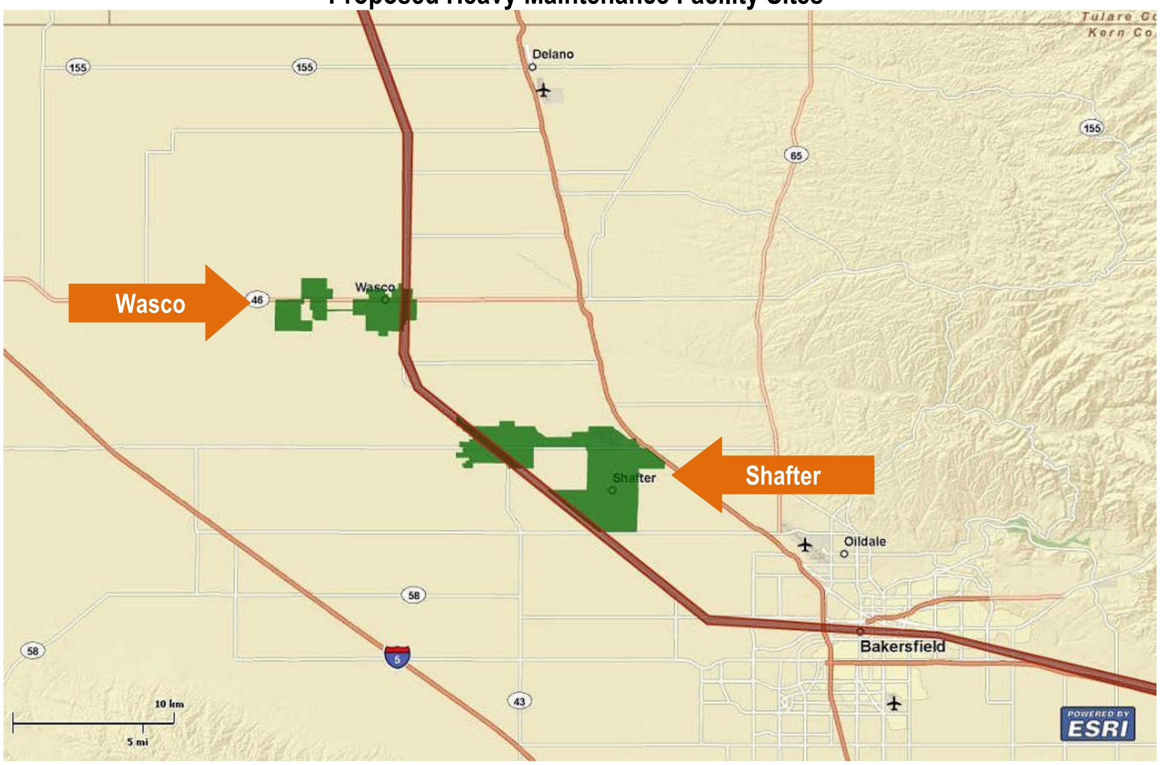
| | |
|---|---|
| Output ($ millions) | $ 245.3 |
| Employment (jobs) | 1,990 |
| Labor income ($ millions) | $ 146.3 |
| State and local taxes ($ millions) | $ 25.9 |

Sources: Kern County Administrative Office; LAEDC

# Introduction

The California High-Speed Rail Authority is evaluating several sites for a heavy maintenance facility, two of which are in Kern County. One is a 640-acre site in Shafter; the second is a 421-acre site in Wasco (see map). The establishment of such a facility would generate employment opportunities and economic activity.

**Proposed Heavy Maintenance Facility Sites**




Source: ESRI

In this report, the Economic and Policy Consulting Practice of the Los Angeles County Economic Development Corporation (LAEDC) presents an analysis of the economic impact of a high-speed rail heavy maintenance facility (HSR HMF) in Kern County in three parts. Part I describes the Kern County economy and its recent performance, including industrial structure, employment and employment growth, wages, unemployment, commuting patterns, property values and retail sales. Part II estimates the expected economic impact of the initial construction of the maintenance facility, including direct, indirect and induced employment and business revenues. Part III estimates the expected annual economic impact of ongoing operations at the maintenance facility, including direct, indirect and induced employment and business revenues.

# I. Kern County Economic Picture


Photo courtesy of Kern County

Kern County is California's third-largest county by land area, covering over 8,000 square miles. Located at the southern end of California's Central Valley, Kern County enjoys a history of gold, oil and agricultural production. It consistently ranks among the top five most-productive agricultural counties in the United States, and is one of the nation's leading petroleum-producing counties. Lying to the northeast of Los Angeles County, Kern has become the distribution center for some of the world's largest companies, providing access from the ports of Southern California to all points to the east through rail and road arteries.

Kern County is home to more than 830,000 people whose household and housing characteristics are presented in Exhibit I-1, with projections for 2015. These data are provided by ESRI Business Analyst Online, a data service that combines geographic information systems (GIS) mapping technology with extensive public demographic and economic data.

**Exhibit I-1**
**Demographic Profile in Kern County**

| | 2000 | 2010 | 2015 |
|---|---|---|---|
| Population | 661,645 | 830,222 | 888,432 |
| Households | 208,652 | 255,037 | 272,317 |
| Average household size | 3.03 | 3.11 | 3.12 |
| Owner occupied housing units | 129,609 | 155,979 | 167,281 |
| Renter occupied housing units | 79,043 | 99,058 | 105,036 |

Source: ESRI Business Analyst Online

ESRI estimates that in 2010 the population of Kern County has increased by 25 percent since the 2000 Census. The population is expected to continue growing, although at a slower rate, and is forecast to increase by approximately 7 percent by 2015 to just less than 890,000 people.

In 2010, there are an estimated 255,000 households in Kern County, and 61 percent of the housing units are owner-occupied. The average household size is just over 3 people, and is expected to remain steady over the next five years. The median age in Kern County is 31 years old. Approximately 55 percent of the residents are white and 49 percent are of Hispanic origin.

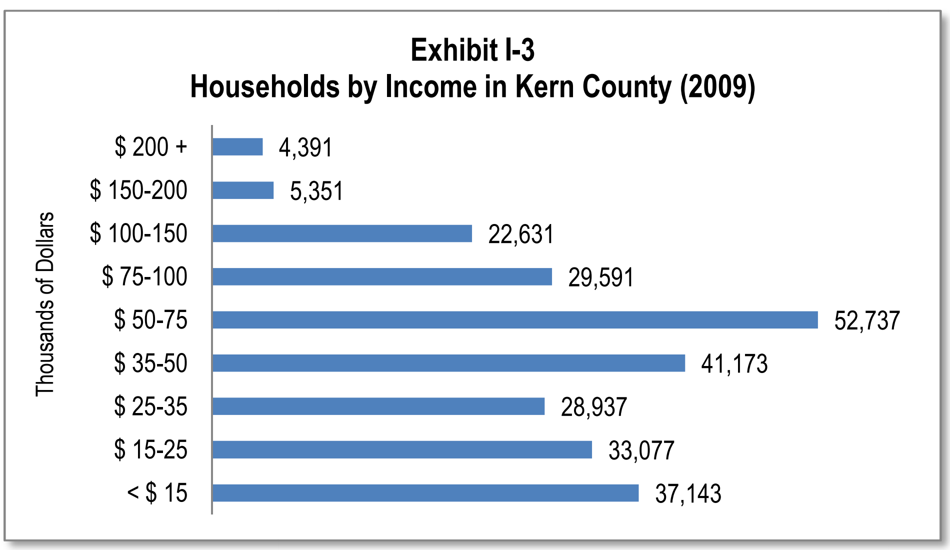
The income characteristics of households in Kern County are shown in Exhibit I-2. Median household income in 2010 is $44,458, compared to a state-wide median of $60,992, and per capita income is $18,478 ($27,845 state-wide).

**Exhibit I-2**
**Income Profile in Kern County**

| | 2000 | 2010 | 2015 |
|---|---|---|---|
| Median household income | $ 35,452 | $ 44,458 | $ 51,670 |
| Average household income | 47,107 | 56,960 | 65,027 |
| Per capita income | 15,760 | 18,478 | 20,974 |

Source: ESRI Business Analyst Online

Distribution of income by household in Kern County is shown in Exhibit I-3. Of the 255,000 households in the county, 45 percent have annual incomes of more than $50,000.




Source: ESRI Business Analyst Online

### *Industries, Employment and Wages*

In 2008, Kern County had an estimated gross regional product of $27.5 billion. There were almost 18,000 businesses representing the full variety of industries, as seen in Exhibit I-4. Almost 10 percent of all businesses are engaged in retail trade, 7.5 percent are in the health care and social assistance industry, 7.3 percent are in the construction industry, and 8.1 percent are in government sectors. A description of the industries is provided in the Appendix.

**Exhibit I-4**
**Businesses in Kern County by Industry Sector (2008)**

| Industry | Number of businesses | % of total |
|---|---|---|
| Agriculture | 751 | 4.2 |
| Mining | 157 | 0.9 |
| Utilities | 67 | 0.4 |
| Construction | 1,320 | 7.3 |
| Manufacturing ** | 416 | 2.3 |
| Wholesale trade | 579 | 3.2 |
| Retail trade | 1,710 | 9.5 |
| Transportation and warehousing ** | 416 | 2.3 |
| Information ** | 134 | 0.7 |
| Finance and insurance | 586 | 3.3 |
| Real estate and rental | 570 | 3.2 |
| Professional, scientific and technical services | 1,124 | 6.3 |
| Management of companies | 52 | 0.3 |
| Administrative and waste management | 588 | 3.3 |
| Educational services | 88 | 0.5 |
| Health care and social assistance | 1,348 | 7.5 |
| Arts, entertainment and recreation | 136 | 0.8 |
| Accommodation and food services | 1,152 | 6.4 |
| Other services | 5,318 | 29.6 |
| Government and non-NAICS | 1,463 | 8.1 |
| Confidential records | 5 | 0.0 |
| **Total *** | **17,980** | **100.0** |

* May not sum due to rounding
** Confidentiality requirements limit reporting in these sectors; these firms are reported in the final category.
Source: CA EDD

These businesses together paid over $11 billion in wages to 285,000 payroll workers, as shown in Exhibit I-5. (Self-employed workers are not included.)

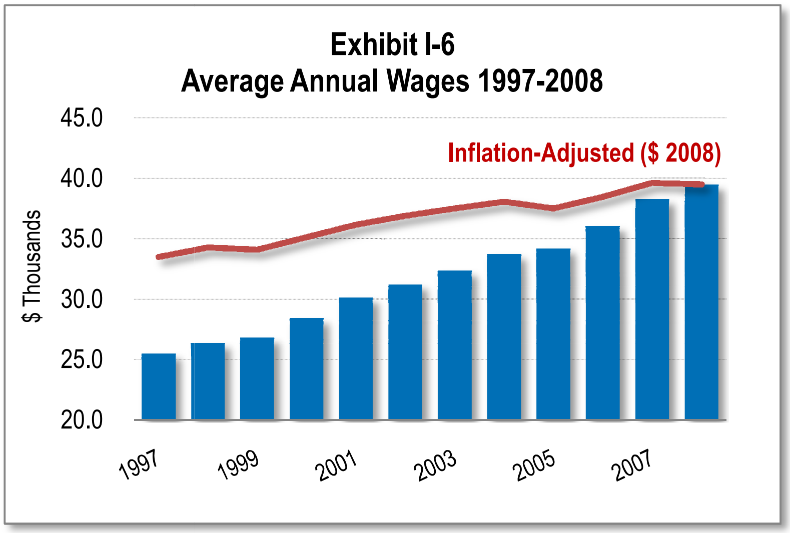
**Exhibit I-5**
**Employment in Kern County by Industry Sector (2008)**

| Industry | Number of employees | % of total | Average weekly wage |
|---|---|---|---|
| Agriculture | 48,250 | 16.9 | $ 402 |
| Mining | 10,707 | 3.8 | 1,644 |
| Utilities | 1,451 | 0.5 | 1,632 |
| Construction | 16,303 | 5.7 | 950 |
| Manufacturing ** | 13,433 | 4.7 | 997 |
| Wholesale trade | 8,782 | 3.1 | 962 |
| Retail trade | 27,564 | 9.7 | 512 |
| Warehousing and storage ** | 7,427 | 2.6 | 849 |
| Information ** | 3,049 | 1.1 | 878 |
| Finance and insurance | 5,567 | 2.0 | 936 |
| Real estate and rental | 3,276 | 1.1 | 688 |
| Professional, scientific and technical services | 10,642 | 3.7 | 1,058 |
| Management of companies | 2,503 | 0.9 | 1,025 |
| Administrative and waste management | 12,165 | 4.3 | 605 |
| Educational services | 1,056 | 0.4 | 563 |
| Health care and social assistance | 23,200 | 8.1 | 808 |
| Arts, entertainment and recreation | 2,448 | 0.9 | 346 |
| Accommodation and food services | 19,010 | 6.7 | 284 |
| Other services | 9,052 | 3.2 | 461 |
| Government and non-NAICS | 59,005 | 20.7 | 984 |
| Confidential records | 76 | 0.0 | n/a |
| **Total *** | **284,966** | **100.0** | **759** |

* May not sum due to rounding
** Confidentiality requirements limit reporting in these sectors; these employees are reported in the final category.
Source: CA EDD

Agriculture continues to play a large role in the economy of Kern County. Although only 4.2 percent of all businesses in Kern County were in the agriculture sector, these businesses employed almost 17 percent of all payroll employees. Retail trade employed 9.7 percent of all employees, and health care and social assistance employed 8.1 percent. The sector called "other services," which has the largest share of all business, employed only 3.2 percent of all employees. However, this sector includes many personal services which are provided by self-employed workers, who would not appear in the tables above.

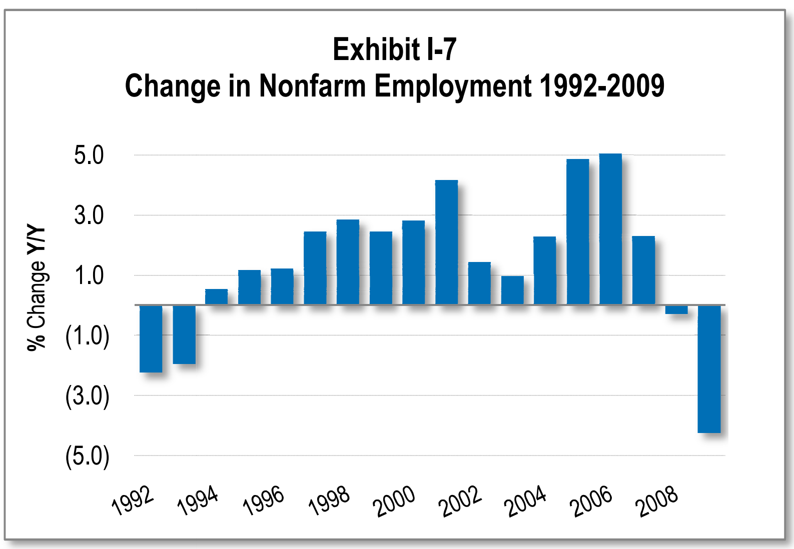
The average annual wage in 2008 across all industries was $39,468. This has increased since 1997 from $25,480, as shown in Exhibit I-6. The exhibit also shows inflation-adjusted annual wages, which shows that inflation has accounted for most of the increase in nominal wages over the period.




Source: CA EDD

### *Employment Growth and Unemployment*

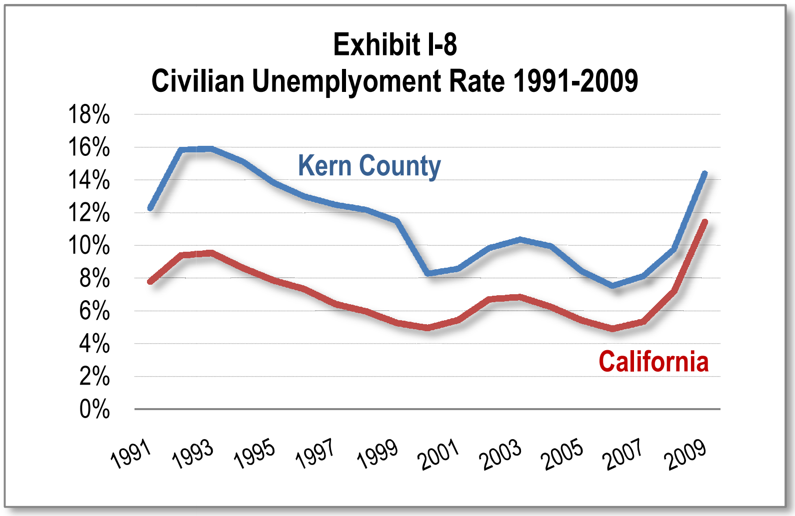
Kern County experienced a severe downturn in the early 1990s along with the rest of the country, but managed to show continued employment gains through the remainder of the 1990s and into 2006, avoiding the declines experienced by Los Angeles County in 2002 and 2003.




Source: CA EDD

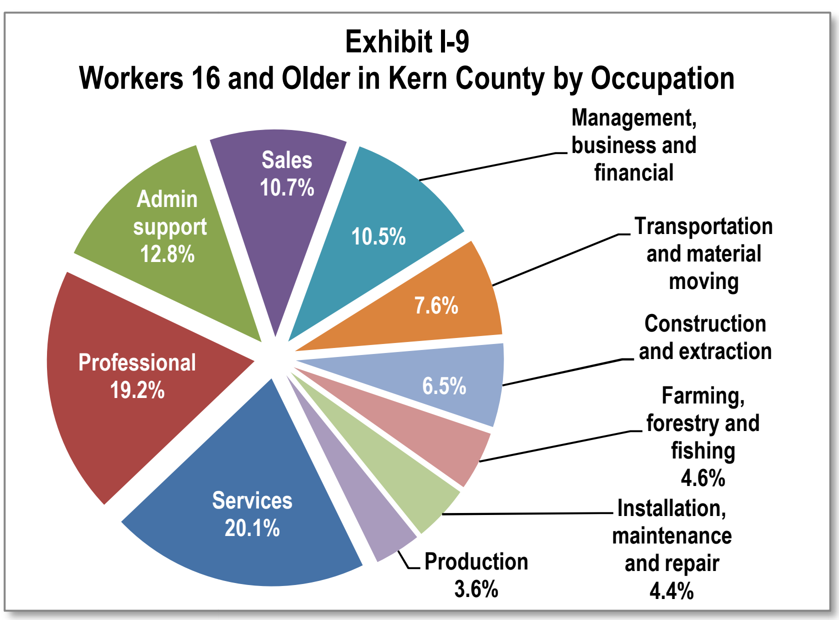
The pace of employment growth in Kern County outstripped growth in the Los Angeles County throughout the period shown in the exhibit, reaching a robust 4.9 percent in 2005 and 5.0 percent in 2006. As with the rest of the nation, Kern County entered a recession in December 2007, with employment growth entering negative territory in 2008 and falling by 5.2 percent in 2009.

The civilian unemployment rate since 1991 is shown in Exhibit I-8. The unemployment rate has been consistently higher than the state average, reaching 14.4 percent in 2009, a full 3 percentage points higher than the average unemployment rate in California.




Source: BLS

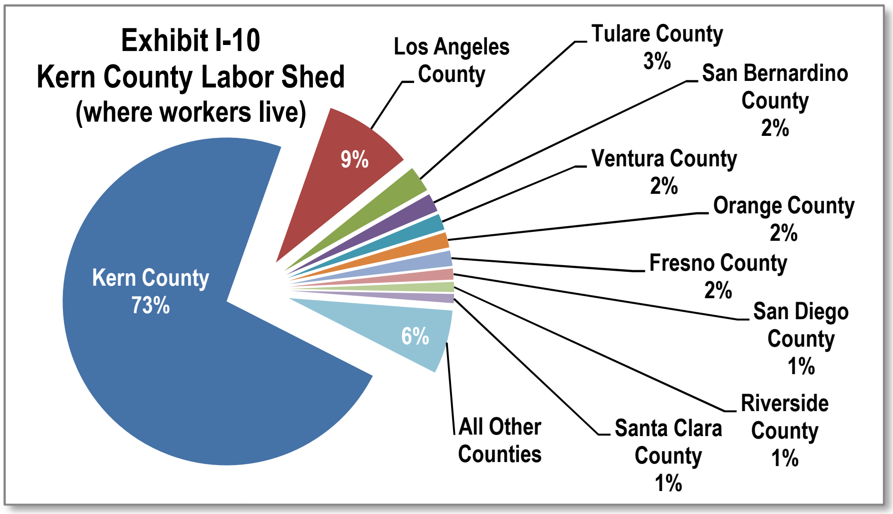
The occupational distribution of workers in Kern County is shown in Exhibit I-9. Over 20 percent of workers aged 16 and older are employed in service occupations, such as personal care, protective service, and community and social services. Another 19 percent are in professional occupations, such as architects, engineers, scientists, and legal occupations, while almost 13 percent are in administrative support occupations, which include bookkeepers, customer service reps, secretaries and office clerks.




Source: ESRI Business Analyst Online

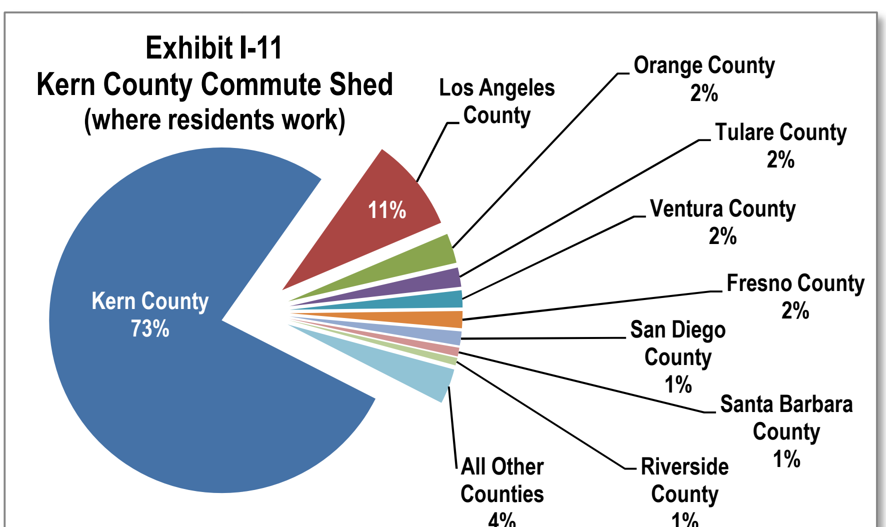
### *Commuting Patterns*

The geographic area from which businesses draw their workers is called the labor shed. Kern County's labor shed includes all regions where those who are employed in Kern County live. Almost 73 percent of Kern County's workers live in Kern County, but many commute from neighboring counties, including 8.8 percent from Los Angeles County and 2.7 percent from Tulare County. At the city level, of all the payroll jobs in Kern County in 2008, over 32 percent were held by residents of Bakersfield. The composition of Kern County's labor shed is shown in Exhibit I-10.




Source: CA State Board of Equalization

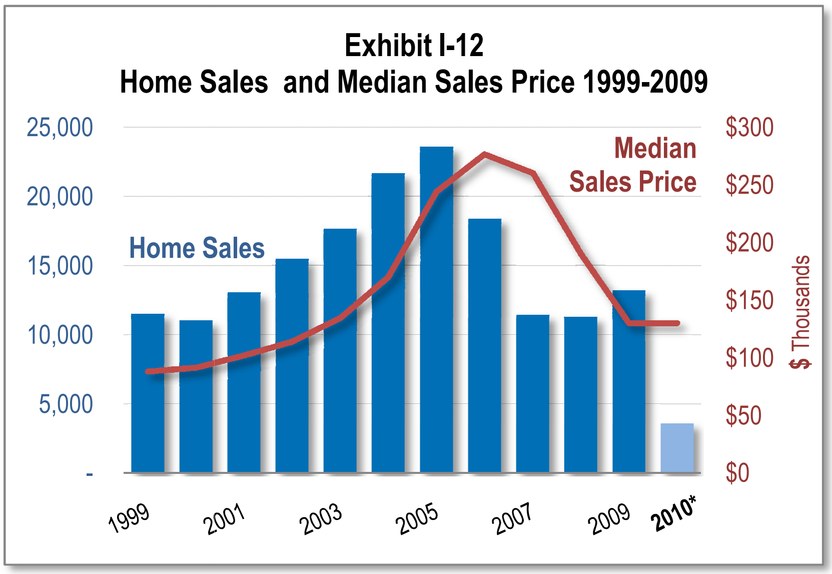
At the same time, residents of Kern County may be employed outside of the county borders. The geographic area where residents go to work is called the commute shed. Most working residents of Kern County work in Kern County. An additional 11 percent work in Los Angeles County, and 2 percent work in Tulare County. In 2008, 38 percent of Kern County residents who were employed held jobs in Bakersfield. These data are shown in Exhibit I-11.




Source: CA State Board of Equalization

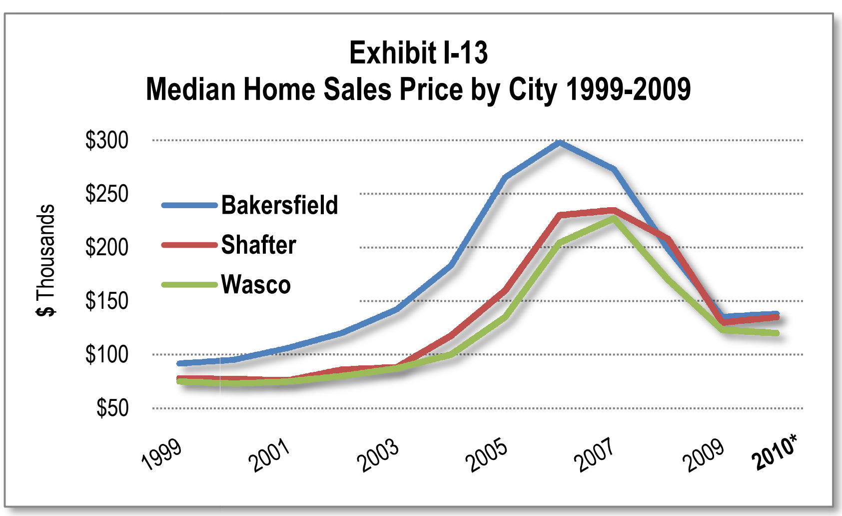
### *Property Values*

Annual home sale data for Kern County is shown in Exhibit I-12. The number of transactions grew steadily from 1999, reaching 23,574 in 2005. Sales transactions fell by 50 percent over the next two years, reaching 11,295 transactions in 2008. Median home prices rose through 2006, reaching $276,500, before crashing to $130,000 in 2009. Prices remained flat during the first four months of 2010.



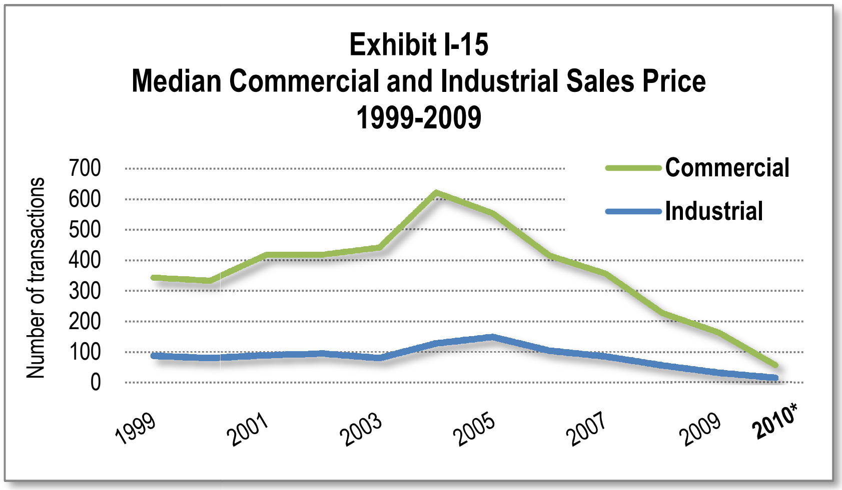

* Data for January through April 2010 only
Sources: MDA DataQuick; DQNews.com

The median sales price trends at the city level follow the county average. Data for three cities are shown in Exhibit I-13. While the median home prices in Shafter and Wasco have been well below those in Bakersfield, the recent recession has left prices equally depressed in all three cities.




* Data for January through April 2010 only
Sources: MDA DataQuick; DQNews.com

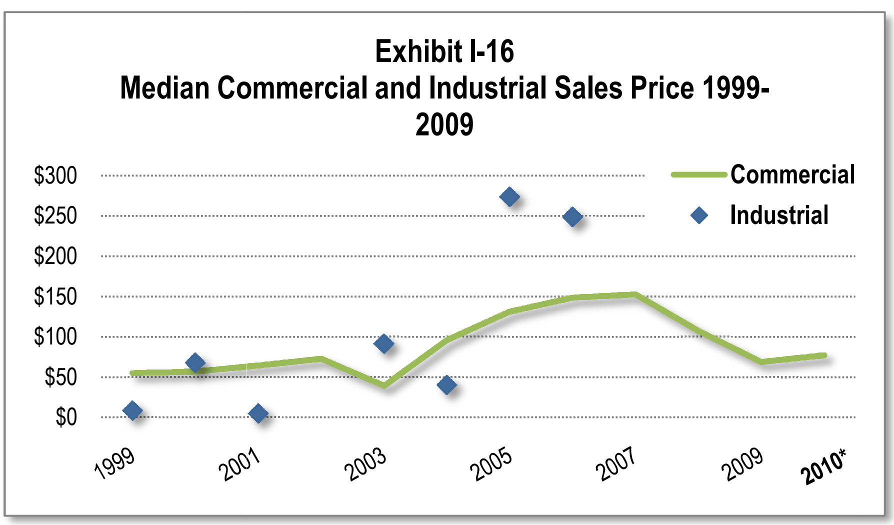
Commercial property sales peaked in 2004, with 620 transactions taking place in Kern County. The number dropped precipitously thereafter, reaching 162 transactions in 2009 and 56 transactions in the first four months of 2010. Over half of all transactions take place in Bakersfield; less than four percent occur in Shafter and Wasco.




* Data for January through April 2010 only
Sources: MDA DataQuick; DQNews.com

Industrial property sales peaked in 2005, with 149 transactions in Kern County, almost two thirds of which occurred in Bakersfield. Industrial sales fell to 32 in 2009 and 15 during the first four months of 2010.

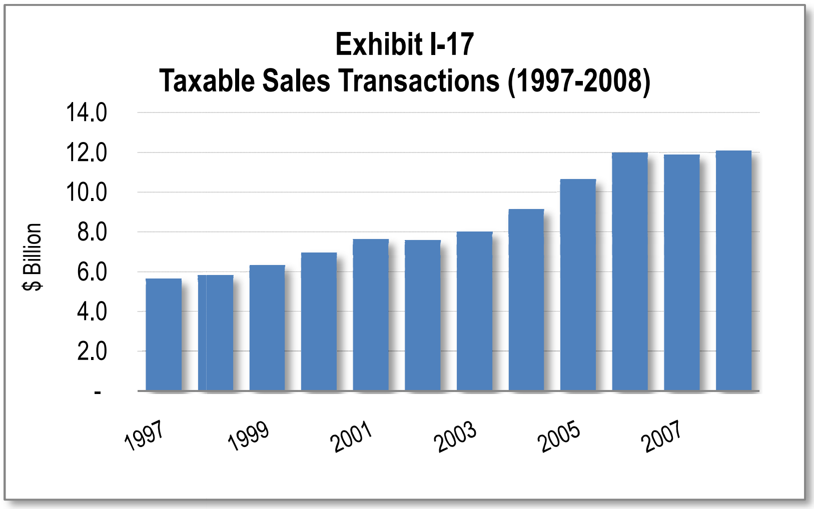
Median sales prices per square foot for commercial and industrial property are shown in Exhibit I-16 (data for industrial prices were not available for all years).




* Data for January through April 2010 only
Sources: MDA DataQuick; DQNews.com

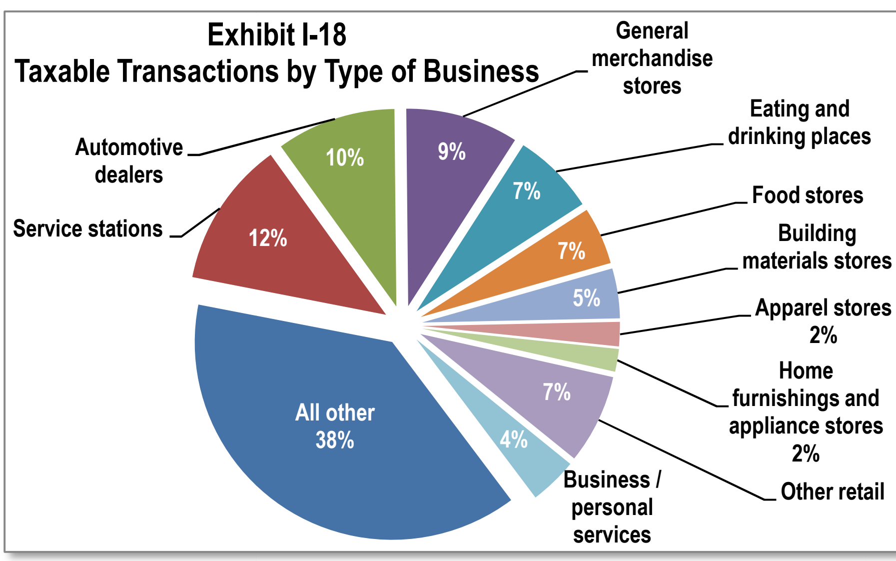
### *Retail Sales*

Taxable sales transactions in Kern County since 1997 are presented in Exhibit I-17. In 2008, taxable transactions exceeded $12 billion.




Source: CA State Board of Equalization

The source of taxable transactions by type of business is shown in Exhibit I-18. The majority of taxable transactions, almost 60 percent, occurred in retail stores such as service stations, automotive products dealers and general merchandise stores. Other types of businesses include wholesalers (who may also engage in retail sales), professional services, manufacturing businesses, and rental and leasing services. Although these businesses typically do not conduct taxable retail transactions, their purchases of equipment from outside the state are subject to use tax.




Source: CA State Board of Equalization

# II. HSR HMF Employment Impact of Initial Construction

Photo courtesy of California High Speed Rail Authority

The HSR heavy maintenance facility will include support and storage tracks needed to perform inspection and maintenance activities, required parking areas, utilities (including an on-site electrical sub-station), and shop facilities. Support buildings will range in size from 631,000 square feet to 840,000 square feet.

The Kern County Construction Services Division estimates that costs will range from $242.5 million to $317.0 million, with an additional 5.5 percent for architectural and engineering costs. Extension of utilities to the site in Wasco would add $2.2 million. In addition, full service construction management, if used, would entail additional costs ranging from $9.7 million to $12.7 million.

These data are summarized in the exhibit below.

**Exhibit II-1**
**Projected Development Costs ($ million)**

| | Low Range | High Range |
|---|---|---|
| Extension of utilities (Wasco site) | $ 0.0 | $ 2.2 |
| Construction | 242.5 | 317.0 |
| Architectural and engineering fees | 13.3 | 17.4 |
| Construction management | 9.7 | 12.7 |

Source: Kern County Administrative Office

Given this information, we estimate that the total development costs will range from $255.8 to $349.3 million. The low end of the range includes the smallest possible building layout and related construction and architectural/engineering fees, but no utilities extension or construction management. The high end of the range assumes the larger buildings are built at the Wasco site (requiring the utilities extension) using a construction management firm. The actual cost will fall somewhere in this range depending on which site is selected, the size of the project and whether professional construction management is used.

We anticipate that some of the spending will leak out of Kern County and will not have a local economic impact. Our estimates correct for this leakage, which occurs when goods and services for the project are purchased from outside the county.

The total economic impact of both the low range and the high range of construction spending is shown in the exhibit below. Spending $255.8 million on the development of the facility will generate a one-time increase in economic output (measured by business revenues) in Kern County of $231.0 million. The investment will create 1,520 jobs in Kern County with total earnings of $92.2 million.

Should the development costs reach the high end of the range, the one-time increase in economic output in Kern County will be $329.3 million, creating 2,170 jobs with total earnings of $132.1 million.

**Exhibit II-2**
**Total One-Time Economic Impact of Kern HSR Construction**

| | Low Range | High Range |
|---|---|---|
| Direct spending ($ millions) | $ 255.8 | $ 349.3 |
| Spending in Kern County ($ millions) | 170.5 | 242.6 |
| **Total Economic Impact** | | |
| Output ($ millions) | $ 231.0 | $ 329.3 |
| Employment (jobs) | 1,520 | 2,170 |
| Labor income ($ millions) | $ 92.2 | $ 132.1 |

Sources: Kern County Administrative Office; LAEDC

### *Industry Sector Impacts*

The economic impact spills across industries in Kern County through indirect and induced effects. The annual impacts by industry sector due to ongoing operations appear in the exhibits below. Exhibit II-3 presents the industry impacts which would occur if construction costs are in the low range of the estimates; Exhibit II-4 presents industry impacts for the high range of construction costs.

Much of the impacts will occur in the construction sector and the professional, scientific and technical services industry, but other sectors affected include health care and social assistance, retail trade and accommodation and food services.

The values in Exhibits II-3 and II-4 should be interpreted as illustrative of the industry effects rather than precise given model and data limitations. A description of these industries is provided in the Appendix.

**Exhibit II-3**
**Economic Impact by Industry Sector – Low Range**

| Industry | Output ($ million) | Jobs | Labor income ($ million) |
|---|---|---|---|
| Agriculture | $ 0.2 | 1 | $ 0.1 |
| Mining | 0.1 | 0 | 0.0 |
| Utilities | 1.1 | 1 | 0.2 |
| Construction | 161.9 | 986 | 66.0 |
| Manufacturing | 3.0 | 6 | 0.4 |
| Wholesale trade | 2.0 | 11 | 0.8 |
| Retail trade | 6.9 | 94 | 3.1 |
| Transportation and warehousing | 1.6 | 10 | 0.6 |
| Information | 1.7 | 5 | 0.3 |
| Finance and insurance | 4.0 | 19 | 1.1 |
| Real estate and rental | 11.0 | 16 | 0.7 |
| Professional, scientific and technical services | 21.4 | 160 | 11.7 |
| Management of companies | 0.5 | 3 | 0.2 |
| Administrative and waste management | 1.7 | 32 | 0.9 |
| Educational services | 0.2 | 4 | 0.1 |
| Health care and social assistance | 6.1 | 69 | 3.3 |
| Arts, entertainment and recreation | 0.4 | 6 | 0.1 |
| Accommodation and food services | 2.1 | 38 | 0.7 |
| Other services | 4.1 | 51 | 1.5 |
| Government and non-NAICS | 1.1 | 5 | 0.4 |
| **Total *** | **$ 231.0** | **1,520** | **$ 92.2** |

* May not sum due to rounding
Source: LAEDC

**Exhibit II-4**
**Economic Impact by Industry Sector – High Range**

| Industry | Output ($ million) | Jobs | Labor income ($ million) |
|---|---|---|---|
| Agriculture | $ 0.3 | 2 | $ 0.1 |
| Mining | 0.2 | 0 | 0.0 |
| Utilities | 1.6 | 2 | 0.3 |
| Construction | 225.9 | 1,375 | 92.1 |
| Manufacturing | 4.1 | 9 | 0.5 |
| Wholesale trade | 2.8 | 16 | 1.1 |
| Retail trade | 9.8 | 134 | 4.4 |
| Transportation and warehousing | 2.2 | 14 | 0.9 |
| Information | 2.5 | 7 | 0.5 |
| Finance and insurance | 5.8 | 27 | 1.6 |
| Real estate and rental | 15.8 | 22 | 0.9 |
| Professional, scientific and technical services | 35.1 | 264 | 19.2 |
| Management of companies | 0.7 | 4 | 0.3 |
| Administrative and waste management | 2.5 | 48 | 1.3 |
| Educational services | 0.3 | 6 | 0.1 |
| Health care and social assistance | 8.7 | 99 | 4.7 |
| Arts, entertainment and recreation | 0.5 | 8 | 0.2 |
| Accommodation and food services | 3.1 | 55 | 1.1 |
| Other services | 5.7 | 72 | 2.2 |
| Government and non-NAICS | 1.5 | 8 | 0.6 |
| **Total *** | **$ 329.3** | **2,170** | **$ 132.1** |

* May not sum due to rounding
Source: LAEDC

### *Retail Spending Impact*

The additional employment and earnings from the construction project will add to the retail spending in Kern County. To estimate this spending, we apply the spending patterns described in the *Consumer Expenditure Survey, 2007-2008* of the Bureau of Labor Statistics of the U.S. Department of Commerce to the labor income generated by the construction.

The survey disaggregates spending for various categories, including housing, transportation, food, health care, etc. We assume that only the following categories represent local retail spending: food away from home, alcoholic beverages, housekeeping supplies, household furnishings and equipment, apparel and services, gasoline and motor oil purchases, other vehicle expenses, personal care products and services, reading, tobacco products and smoking supplies, and a portion of entertainment spending.

Since this data is not available for Kern County, we review the data for the Los Angeles metropolitan area. The percentage of household income spent on these categories in Los Angeles is approximately 22 percent. Because we believe that household expenditures in Los Angeles are skewed towards property and may not be representative of Kern County, we also review the average spending pattern in the United States, and find that our local spending categories account for 23.5 percent of household income at the national level.

Given this information, we estimate that between 22 and 23.5 percent of the new labor income of between $92.2 million and $132.1 million, or between $20.3 million and $31.0 million, will be added to local retail spending by the construction-related activity.

### *Fiscal Impact*

In addition to the economic impact, we have identified at least $7.5 million in state and local tax revenues that will be generated by the initial construction, as shown in Exhibit II-5.

**Exhibit II-5**
**Total Fiscal Impact of Capital Expenditures ($ million)**

| | Low Range | High Range |
|---|---|---|
| Income taxes (including profits taxes) | $ 2.6 | $ 3.7 |
| Sales taxes | 1.8 | 2.5 |
| Property taxes | 1.5 | 2.1 |
| Fees, fines | 0.8 | 1.2 |
| Social insurance | 0.5 | 0.7 |
| Other taxes | 0.4 | 0.5 |
| **Total *** | **$ 7.5** | **$ 10.7** |

* May not sum due to rounding
Source: LAEDC

Our estimates of tax revenues are incomplete since we do not account for permits and fees payable on capital improvement projects, which could be considerable.

### *Regional Employment Impacts*

Construction of the HSR heavy maintenance facility will have additional employment impacts beyond those estimated for Kern County. Many purchases of goods and services will come from neighboring counties, and we have seen that workers may commute from as far away as San Diego County (or beyond). Using the data from the Kern County labor shed, we estimate the employment impact of the HSR HMF on Los Angeles County and on those counties which provided more than 1 percent of the work force for Kern County, which include Tulare, San Bernardino, Ventura, Orange, Fresno, San Diego and Riverside. These regional employment impacts are presented in Exhibit II-6.

| Exhibit II-6<br>Regional Employment Impact of Kern HSR Construction | | |
|---|---|---|
| | **Low Range** | **High Range** |
| Kern County | 1,520 | 2,170 |
| Los Angeles County | 240 | 340 |
| Other neighboring counties | 120 | 170 |

Sources: Kern County Administrative Office; LAEDC

The employment impact of the construction of the HSR HMF in Kern County is estimated to be between 1,520 and 2,170 jobs, depending on the total construction spending. An additional 240 to 340 jobs would be generated in Los Angeles County, and between 120 and 170 jobs in the remaining seven counties.

# III. HSR HMF Employment Impact of Ongoing Operations

The heavy maintenance facility will offer a wide variety of capabilities involved in the repair and overhaul of high-speed trains, including: exterior washing and inspection; interior renovation; interior and exterior paint; steel body structure modifications; selected electrical component overhaul; repairs to train sets that have extensive damage caused by accident or act of nature; and other repairs common to conventional rolling stock. The facility will need layup and storage tracks to support the removal of trains from service, and a number of separate support shops, such as a truck shop, a component cleaning area, brake shop, air room (to clean, inspect and rebuild brake system components), an HVAC repair shop, a wheel shop, and a electronics shop for electronic components such as panels relays, circuit cards and control units. The facility would also need space for an inventory of parts, including a loading dock and all equipment necessary for storage and distribution (forklift, cranes, pallet shelving etc.).

The facility is expected to employ 1,500 workers when operating at full capacity, which will not happen until years after the facility opens during initial testing of the system. Exhibit III-1 presents our estimates of the annual ongoing operations impact of the heavy maintenance facility at full operating capacity.

| Exhibit III-1<br>Economic Impact of Ongoing Operations in Kern County | |
|---|---|
| **Direct Impact** | |
| Employment | 1,500 |
| **Total Economic Impact** | |
| Output ($ millions) | $ 245.3 |
| Employment (jobs) | 1,990 |
| Labor income ($ millions) | $ 146.3 |

Sources: Kern County Administrative Office; LAEDC

During the initial operations, the employment will be far less than the 1,500 expected once the entire state-wide HSR system is complete and operational. The economic impact will be proportionally lower until then.

At full operating capacity, the heavy maintenance facility will generate annual economic activity in Kern County in the amount of $245.3 million, and will support 1,990 direct, indirect and induced jobs with total annual earnings of $146.3 million.

### *Industry Sector Impacts*

The economic impact will spill across industries in Kern County through indirect and induced effects. The economic impacts by industry sector due to ongoing operations appear in Exhibit III-2.

In addition to the impacts in the transportation sector, much of the impacts will occur in the retail trade and health care and social assistance sectors.

**Exhibit III-2**
**Economic Impact of Ongoing Operations by Industry Sector**

| Industry | Output ($ million) | Jobs | Earnings ($ million) |
|---|---|---|---|
| Agriculture | $ 0.3 | 2 | $ 0.1 |
| Mining | 0.1 | 0 | 0.0 |
| Utilities | 1.4 | 2 | 0.3 |
| Construction | 0.7 | 6 | 0.4 |
| Manufacturing | 1.0 | 1 | 0.1 |
| Wholesale trade | 1.4 | 8 | 0.5 |
| Retail trade | 8.1 | 110 | 3.6 |
| Transportation and warehousing | 188.1 | 1,519 | 128.4 |
| Information | 1.5 | 4 | 0.3 |
| Finance and insurance | 5.0 | 23 | 1.4 |
| Real estate and rental | 15.1 | 15 | 0.4 |
| Professional, scientific and technical services | 1.4 | 11 | 0.6 |
| Management of companies | 0.4 | 3 | 0.2 |
| Administrative and waste management | 2.0 | 36 | 1.0 |
| Educational services | 0.3 | 6 | 0.1 |
| Health care and social assistance | 9.8 | 111 | 5.3 |
| Arts, entertainment and recreation | 0.6 | 8 | 0.2 |
| Accommodation and food services | 2.8 | 50 | 1.0 |
| Other services | 3.1 | 54 | 1.3 |
| Government and non-NAICS | 2.4 | 18 | 1.3 |
| **Total *** | **$ 245.3** | **1,990** | **$ 146.3** |

* May not sum due to rounding
Source: LAEDC

The values in the exhibit should be interpreted as illustrative of the industry effects rather than precise given model and data limitations. A description of these industries is provided in the Appendix.

### *Retail Spending Impact*

Since this data is not available for Kern County, we review the data for the Los Angeles metropolitan area. The percentage of household income spent on these categories in Los Angeles is approximately 22 percent. Because we believe that household expenditures in Los Angeles are skewed towards property and may not be representative of Kern County, we also review the average spending pattern in the United States, and find that our local spending categories account for 23.5 percent of household income at the national level.

Using the same methodology as for construction, we estimate that between 22 and 23.5 percent of the new labor income of $146.3 million, or between $32.2 million and $34.4 million, will be added to the annual local retail spending once the HSR HMF reaches full operation.

### *Fiscal Impact*

In addition, we have identified $25.9 million in state and local tax revenues that will be generated by the ongoing operations of the heavy maintenance facility, as shown in Exhibit III-3.

**Exhibit III-3**
**Fiscal Impact of Metropolitan Operations ($ million)**

| | |
|---|---|
| Sales taxes | $ 9.4 |
| Property taxes | 7.5 |
| Income taxes (including profits taxes) | 4.5 |
| Fees, fines | 2.0 |
| Social insurance | 0.6 |
| Other taxes | 1.9 |
| **Total** * | **$ 25.9** |

* May not sum due to rounding
Source: LAEDC

Our estimates of tax revenues are incomplete since we do not account for any ongoing permits and fees payable on typical improvement projects, which could be considerable.

### *Regional Employment Impacts*

As with construction, operations of the HSR heavy maintenance facility will have additional regional employment impacts beyond Kern County as purchases of goods, services and labor come from neighboring counties. Using the data from the Kern County labor shed, we estimate the employment impact of the HSR HMF on Los Angeles County and on those counties which provided more than 1 percent of the work force for Kern County, which include Tulare, San Bernardino, Ventura, Orange, Fresno, San Diego and Riverside. These regional employment impacts are presented in Exhibit III-4.

**Exhibit III-4**
**Economic Impact of Ongoing Operations in Kern County**

| | |
|---|---|
| Kern County | 1,990 |
| Los Angeles County | 120 |
| Other neighboring counties | 60 |

Sources: Kern County Administrative Office; LAEDC

The annual employment impact of the operations of the HSR HMF in Kern County (at full capacity) is estimated to be 1,990 jobs. An additional 120 jobs would be generated in Los Angeles County, and 60 jobs in the remaining seven counties.

# IV. Prospects for Supporting Industries

One potential benefit of establishing a heavy maintenance facility in Kern County is the ability of the facility to attract new ancillary industries or to stimulate the output of existing industries. These are called backward linkages.

The difficulty of establishing or strengthening these linkages is due in large part to the ability of other areas to supply the inputs needed.

Initially, we would expect the prospects for Kern County to develop supporting industries to be quite low. In the early implementation of the high-speed rail system, relatively few trains would need heavy maintenance, and demand for local products servicing the facility will be limited. Moreover, even in the longer run, as the high-speed rail system develops and extends statewide, demand may remain insufficient to support a local network of suppliers given the specialized nature and limited sales volume of the products needed.

We can contrast this with the automotive industry, in which a single automotive plant may produce thousands of vehicles annually, each requiring a wide variety of components from batteries to windshields to radios. The high-speed train sets, on the other hand, need only replacement parts and supplies such as paint for a comparatively small fleet of vehicles.

Further, based on existing labor patterns and commodity flows we would expect that many parts and services will be produced in or imported via the Los Angeles area.

On the other hand, California would be the first adopter of high-speed rail in the nation. As high-speed rail becomes more common, Kern County might well capitalize on the advantages it enjoys such as its availability of affordable land and housing, abundant labor, and its relative proximity to Los Angeles and its trade routes, and attract additional heavy maintenance and related activities. Once the high-speed rail system is complete, one might expect that cities such as Bakersfield would be the prime beneficiaries of the improved transportation network.

Even without a local supplier network, however, the high-speed rail heavy maintenance facility would be a valuable contributor to Kern County. At full operation, the facility would bring 1,500 relatively well-paid, stable jobs to an area which suffers an unemployment rate that consistently exceeds the statewide average. Purchases made by households supported by these jobs will create additional demand for local goods and services. Based on existing commute patterns and an examination of the residential pattern of employees at the Target Distribution Center, we would expect that approximately half of the employees of the facility would be based in Bakersfield, creating an economic impact in that city as households spend their earnings.

Nevertheless, maintenance of the HSR fleet would be less prone to disruption due to swings in the state economy, and the facility would therefore contribute to the diversification and stabilization of the local economy.

# Appendix

### *Methodology*

The total estimated economic impact includes direct, indirect and induced effects. **Direct activity** includes the materials purchased and the employees hired by the Kern County Construction Services Division and its contractors during ongoing operations and for the capital improvement projects. **Indirect effects** are those which stem from the employment and business revenues motivated by the purchases made by the Kern County Construction Services Division and its contractors. For example, indirect jobs are sustained by the suppliers of the office supplies and insurance purchased by the Kern County Construction Services Division and by contractors hired for the capital improvements. **Induced effects** are those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

We used information supplied by the Kern County Construction Services Division for initial spending, and estimated the direct, indirect and induced effects using models developed with data and software from the Minnesota IMPLAN Group. In all cases, we have proceeded as if the spending will take place within a single year, as is customary in this type of impact analysis. For long-term projects such as multi-year capital improvement projects, the reader is cautioned to note that the modeling system does not account for changes in prices and wages over time. Our estimates for labor income and output are expressed in current (2010) dollars.

The estimated economic impacts are based on spending within Kern County. Job creation estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked.

### *Description of Industry Sectors*

The industry sectors used in this report are established by the North American Industry Classification System (NAICS). NAICS divides the economy into twenty sectors, and groups industries within these sectors according to production criteria. Listed below is a short description of each sector as taken from the sourcebook, *North American Industry Classification System,* published by the U.S. Office of Management and Budget (2007).

*Agriculture, Forestry, Fishing and Hunting:* Activities of this sector are growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.

*Mining:* Activities of this sector are extracting naturally-occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing and flotation) and other preparation at the mine site, or as part of mining activity.

*Utilities:* Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipes.

*Construction:* Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.

*Manufacturing:* Activities of this sector are the mechanical, physical, or chemical transformation of material, substances, or components into new products.

*Wholesale Trade:* Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable non-consumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.

*Retail Trade:* Activities of this sector are retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.

*Transportation and Warehousing:* Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.

*Information:* Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.

*Finance and Insurance:* Activities of this sector involve the creation, liquidation, or change of ownership of financial assets (financial transactions) and/or facilitating financial transactions.

*Real Estate and Rental and Leasing:* Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.

*Professional, Scientific, and Technical Services:* Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.

*Management of Companies and Enterprises:* Activities of this sector are the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering, overseeing, and managing other establishments of the same company or enterprise and normally undertaking the strategic or organizational planning and decision-making of the company or enterprise.

*Administrative and Support and Waste Management and Remediation Services:* Activities of this sector are performing routine support activities for the day-to-day operations of other organizations, such as: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

*Educational Services:* Activities of this sector are providing instruction and training in a wide variety of subjects. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means.

*Health Care and Social Assistance:* Activities of this sector are operating or providing health care and social assistance for individuals.

*Arts, Entertainment and Recreation:* Activities of this sector are operating facilities or providing services to meet varied cultural, entertainment, and recreational interests of their patrons, such as: (1) producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) preserving and exhibiting objects and sites of historical, cultural, or educational interest; and (3) operating facilities or providing services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

*Accommodation and Food Services:* Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

*Other Services (except Public Administration):* Activities of this sector are providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.

## Supplementary Tables

**Exhibit A-1**
**Annual Home Sales (Kern County)**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | 100 | 87 | 144 | 152 | 205 | 249 | 283 | 204 | 148 | 155 | 50 |
| BAKERSFIELD | 7,103 | 8,513 | 10,504 | 12,279 | 15,076 | 16,709 | 12,766 | 7,578 | 8,220 | 9,636 | 2,541 |
| BODFISH | 14 | 10 | 18 | 20 | 19 | 26 | 17 | 3 | 12 | 14 | 5 |
| BORON | 22 | 21 | 19 | 30 | 37 | 60 | 43 | 29 | 9 | 16 | 4 |
| BUTTONWILLOW | 7 | 10 | 16 | 12 | 19 | 25 | 12 | 14 | 9 | 8 | 5 |
| CALIENTE | 14 | 10 | 20 | 18 | 11 | 17 | 9 | 5 | 5 | 6 | 2 |
| CALIFORNIA CITY | 180 | 236 | 232 | 301 | 401 | 607 | 458 | 385 | 301 | 506 | 130 |
| CANTIL | | | | | 1 | | 1 | 2 | | 1 | 1 |
| DELANO | 308 | 273 | 430 | 479 | 473 | 709 | 634 | 365 | 296 | 336 | 99 |
| EDWARDS | 19 | 15 | 16 | 26 | 27 | 36 | 21 | 17 | 6 | 13 | 7 |
| FELLOWS | 6 | 2 | 1 | 2 | 2 | 5 | 7 | 3 | 1 | 3 | 2 |
| FRAZIER PARK | 179 | 183 | 243 | 221 | 220 | 211 | 127 | 148 | 116 | 167 | 47 |
| GLENNVILLE | 1 | | 1 | 2 | | 1 | 1 | | | | 1 |
| INYOKERN | 16 | 13 | 13 | 13 | 17 | 21 | 13 | 13 | 9 | 13 | |
| JOHANNESBURG | 1 | | | 3 | 1 | 2 | | 2 | 1 | | |
| KEENE | 5 | 18 | 27 | 16 | 16 | 11 | 6 | 5 | 5 | 4 | 1 |
| KERNVILLE | 16 | 18 | 17 | 23 | 16 | 10 | 7 | 18 | 7 | 10 | |
| LAKE ISABELLA | 60 | 90 | 106 | 113 | 118 | 87 | 78 | 61 | 42 | 50 | 13 |
| LAMONT | 98 | 95 | 132 | 153 | 147 | 170 | 157 | 67 | 41 | 76 | 29 |
| LEBEC | 4 | 1 | 5 | 7 | 4 | 7 | 1 | 26 | 19 | 10 | 3 |
| LOST HILLS | 1 | 1 | 4 | 1 | 1 | 3 | 3 | 13 | 6 | 4 | 2 |
| MARICOPA | 8 | 9 | 7 | 12 | 15 | 22 | 11 | 8 | 6 | 4 | 1 |
| MC FARLAND | 50 | 73 | 112 | 99 | 122 | 136 | 89 | 136 | 59 | 125 | 39 |
| MC KITTRICK | | 1 | | | | 1 | | 1 | 1 | | 1 |
| MOJAVE | 36 | 42 | 38 | 74 | 102 | 94 | 71 | 36 | 34 | 44 | 13 |
| ONYX | 1 | 1 | 5 | 3 | | | 4 | 1 | 3 | 1 | 3 |
| RANDSBURG | | | | | | 1 | | | 1 | 1 | |
| RIDGECREST | 518 | 539 | 689 | 626 | 716 | 816 | 669 | 515 | 439 | 489 | 123 |
| ROSAMOND | 302 | 338 | 428 | 447 | 473 | 512 | 383 | 331 | 320 | 369 | 117 |
| SHAFTER | 161 | 154 | 191 | 162 | 267 | 325 | 302 | 184 | 173 | 185 | 68 |
| TAFT | 181 | 224 | 213 | 276 | 407 | 457 | 412 | 219 | 170 | 179 | 61 |
| TEHACHAPI | 601 | 676 | 926 | 997 | 1,050 | 1,003 | 630 | 677 | 481 | 498 | 127 |
| TUPMAN | 1 | 1 | | 1 | 1 | 1 | | | | | |
| WASCO | 144 | 159 | 214 | 192 | 323 | 372 | 213 | 163 | 133 | 164 | 62 |
| WELDON | 7 | 5 | 11 | 6 | 11 | 12 | 4 | 6 | 6 | 6 | 3 |
| WOFFORD HGHTS | 47 | 55 | 49 | 64 | 73 | 55 | 28 | 37 | 28 | 30 | 6 |
| WOODY | | | 2 | 2 | | 1 | | 2 | 2 | | |
| **KERN COUNTY** | **11,033** | **13,071** | **15,465** | **17,676** | **21,683** | **23,574** | **18,397** | **11,433** | **11,295** | **13,208** | **3,598** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-2**
**Median Home Sale Price**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | $ 70,500 | $ 77,500 | $ 89,250 | $ 87,750 | $110,000 | $156,000 | $220,000 | $231,000 | $170,000 | $115,250 | $110,000 |
| Bakersfield | 95,000 | 106,000 | 120,000 | 142,000 | 183,000 | 265,000 | 298,000 | 273,000 | 198,500 | 135,000 | 138,000 |
| BODFISH | 57,000 | 83,750 | 70,000 | 85,000 | 104,000 | 175,000 | 130,000 | 122,000 | 109,000 | 108,000 | 100,000 |
| BORON | 35,000 | 43,023 | 61,250 | 55,500 | 62,250 | 85,000 | 120,250 | 110,000 | 75,000 | 50,000 | 45,750 |
| BUTTONWILLOW | 60,000 | 79,500 | 97,500 | 85,000 | 85,000 | 100,000 | 159,000 | 147,500 | 125,000 | 118,500 | 67,000 |
| CALIENTE | 72,500 | 70,000 | 107,000 | 140,000 | 225,500 | 174,750 | 379,000 | 352,750 | 127,000 | 201,000 | |
| CALIFORNIA CITY | 67,000 | 75,000 | 79,000 | 97,000 | 130,000 | 175,500 | 230,000 | 208,000 | 120,000 | 59,000 | 63,500 |
| CANTIL | | | | | | | | 115,000 | | 65,000 | 55,000 |
| DELANO | 86,000 | 85,500 | 88,000 | 104,000 | 114,500 | 150,000 | 209,000 | 230,000 | 170,000 | 125,000 | 119,000 |
| EDWARDS | 46,000 | 52,000 | 61,500 | 68,000 | 102,000 | 123,750 | 155,000 | 177,000 | 132,500 | 60,500 | 34,500 |
| FELLOWS | 40,000 | 62,500 | 28,000 | 55,750 | 241,500 | 121,500 | 85,500 | 159,000 | 216,000 | 40,500 | 54,500 |
| FRAZIER PARK | 110,500 | 124,500 | 129,500 | 165,000 | 223,750 | 272,000 | 305,000 | 295,000 | 200,000 | 147,000 | 122,500 |
| GLENNVILLE | 42,000 | | 68,000 | 120,000 | | 290,000 | 120,000 | | | | 45,000 |
| INYOKERN | 90,000 | 61,000 | 70,000 | 139,500 | 177,000 | 140,000 | 190,000 | 167,000 | 49,500 | 185,750 | |
| JOHANNESBURG | | | | 43,500 | | 25,000 | | 60,000 | 28,000 | | |
| KEENE | 67,000 | 83,500 | 105,000 | 190,000 | 265,000 | 549,500 | 465,000 | 743,500 | 731,500 | 382,500 | 390,000 |
| KERNVILLE | 113,500 | 102,250 | 137,000 | 136,500 | 155,000 | 196,000 | 213,750 | 269,000 | 280,000 | 215,000 | |
| LAKE ISABELLA | 73,500 | 77,000 | 80,000 | 89,500 | 112,000 | 139,000 | 187,000 | 169,000 | 146,250 | 115,000 | 115,000 |
| LAMONT | 70,000 | 70,500 | 81,500 | 79,250 | 92,000 | 125,000 | 190,000 | 150,000 | 99,500 | 61,000 | 56,000 |
| LEBEC | 98,750 | 131,500 | 132,250 | 143,000 | 297,500 | 286,750 | 530,000 | 282,000 | 167,000 | 134,500 | 225,000 |
| LOST HILLS | | 82,000 | 75,000 | 58,000 | 40,500 | 70,000 | 76,000 | 156,000 | 190,000 | 180,000 | 220,000 |
| MARICOPA | 53,500 | 55,000 | 36,500 | 48,000 | 55,000 | 79,000 | 140,000 | 72,000 | 120,500 | 63,500 | 31,000 |
| MC FARLAND | 67,000 | 66,000 | 62,750 | 70,000 | 91,750 | 107,000 | 175,000 | 203,000 | 165,000 | 165,000 | 156,000 |
| MC KITTRICK | | 38,000 | | | | 75,000 | | | 189,000 | | 57,000 |
| MOJAVE | 44,250 | 53,000 | 61,750 | 66,000 | 90,000 | 127,500 | 170,000 | 174,500 | 75,000 | 45,750 | 40,500 |
| ONYX | 30,000 | 37,000 | 45,250 | 240,000 | | | 97,500 | 170,000 | 107,000 | 49,500 | 87,000 |
| RANDSBURG | | | | | | 95,500 | | | | | |
| RIDGECREST | 62,500 | 75,577 | 85,000 | 103,000 | 120,000 | 160,000 | 175,000 | 186,000 | 180,000 | 159,000 | 152,000 |
| ROSAMOND | 89,500 | 105,000 | 115,500 | 137,000 | 190,000 | 250,000 | 280,000 | 288,000 | 195,000 | 120,000 | 125,000 |
| Shafter | 77,000 | 76,000 | 86,000 | 88,000 | 117,750 | 160,000 | 230,000 | 235,000 | 208,000 | 130,000 | 135,000 |
| TAFT | 62,000 | 70,000 | 67,250 | 73,000 | 79,000 | 110,000 | 148,000 | 152,250 | 109,000 | 60,000 | 48,250 |
| TEHACHAPI | 102,000 | 115,000 | 134,000 | 153,000 | 188,000 | 260,000 | 297,000 | 277,750 | 240,000 | 181,500 | 167,000 |
| TUPMAN | 53,000 | 48,500 | | 70,000 | | 80,000 | | | | | |
| Wasco | 73,000 | 75,000 | 80,000 | 87,250 | 100,000 | 135,000 | 204,500 | 227,250 | 170,000 | 123,000 | 120,000 |
| WELDON | 89,500 | 144,000 | 86,755 | 55,000 | 119,500 | 136,000 | 153,500 | 155,000 | 183,000 | 59,500 | 70,000 |
| WOFFORD HGHTS | 73,250 | 80,000 | 95,000 | 95,000 | 125,000 | 185,000 | 221,250 | 190,000 | 230,000 | 110,000 | 111,250 |
| WOODY | | | 128,750 | 116,750 | | 350,000 | | 275,000 | 177,500 | | |
| **KERN COUNTY** | **$ 91,500** | **$102,000** | **$114,000** | **$134,500** | **$170,000** | **$244,000** | **$276,500** | **$260,000** | **$190,000** | **$130,000** | **$130,000** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-3**
**Median Home Sale Price per Square Foot**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | $ 59.97 | $ 62.53 | $ 67.20 | $ 71.78 | $ 78.76 | $ 117.07 | $ 149.20 | $ 142.30 | $ 99.89 | $ 78.82 | $ 75.00 |
| BAKERSFIELD | 66.78 | 72.28 | 78.78 | 93.82 | 119.88 | 167.32 | 185.87 | 159.95 | 113.25 | 84.72 | 85.51 |
| BODFISH | 48.33 | 58.78 | 67.83 | 73.44 | 93.47 | 131.43 | 150.95 | 114.45 | 117.28 | 71.43 | 70.92 |
| BORON | 32.66 | 39.01 | 42.74 | 45.40 | 53.20 | 71.22 | 106.20 | 95.79 | 67.20 | 40.87 | 29.73 |
| BUTTONWILLOW | 59.07 | 46.15 | 64.07 | 57.81 | 68.03 | 100.68 | 118.07 | 114.39 | 82.64 | 70.99 | 39.45 |
| CALIENTE | 69.71 | 54.95 | 75.54 | 96.12 | 140.45 | 177.22 | 255.55 | 206.25 | 116.52 | 124.96 | |
| CALIFORNIA CITY | 48.17 | 52.94 | 57.61 | 66.67 | 88.82 | 121.79 | 149.31 | 133.65 | 77.61 | 39.53 | 39.78 |
| CANTIL | | | | | | | | 55.92 | | 73.86 | 32.74 |
| DELANO | 68.42 | 69.03 | 69.78 | 75.98 | 84.49 | 121.14 | 163.73 | 147.69 | 114.40 | 90.16 | 88.54 |
| EDWARDS | 37.89 | 38.36 | 45.87 | 48.63 | 82.31 | 93.47 | 118.90 | 117.35 | 96.54 | 43.68 | 28.08 |
| FELLOWS | 34.35 | 40.05 | 25.88 | 43.09 | 140.46 | 81.68 | 76.16 | 105.58 | 118.49 | 38.79 | 43.67 |
| FRAZIER PARK | 78.24 | 91.13 | 104.43 | 122.59 | 160.82 | 198.26 | 219.85 | 209.27 | 138.16 | 96.40 | 98.09 |
| GLENNVILLE | 39.47 | | 51.05 | 69.44 | | 163.29 | 107.91 | | | | 40.47 |
| INYOKERN | 55.31 | 45.13 | 34.08 | 75.14 | 113.31 | 117.30 | 142.86 | 126.46 | 56.34 | 114.40 | |
| JOHANNESBURG | | | | 40.92 | | 22.16 | | 54.83 | 70.71 | | |
| KEENE | 28.71 | 37.23 | 42.62 | 111.20 | 132.23 | 230.67 | 217.55 | 292.60 | 203.73 | 210.65 | 167.53 |
| KERNVILLE | 85.95 | 83.18 | 99.83 | 113.80 | 141.94 | 184.08 | 267.40 | 191.08 | 174.64 | 144.23 | |
| LAKE ISABELLA | 55.73 | 58.08 | 57.95 | 69.00 | 91.21 | 122.67 | 145.95 | 131.86 | 125.26 | 90.59 | 83.33 |
| LAMONT | 60.75 | 63.68 | 68.83 | 74.80 | 89.81 | 119.13 | 169.43 | 148.66 | 84.10 | 56.62 | 54.50 |
| LEBEC | 51.23 | 60.35 | 73.78 | 127.83 | 191.87 | 191.31 | | 217.29 | 141.71 | 99.95 | 87.29 |
| LOST HILLS | | 61.93 | 66.36 | 48.13 | 33.61 | 62.17 | 39.48 | 98.74 | 119.19 | 105.40 | 112.30 |
| MARICOPA | 28.47 | 47.17 | 47.28 | 41.98 | 51.19 | 76.92 | 119.92 | 100.00 | 106.83 | 55.15 | 22.56 |
| MC FARLAND | 59.12 | 56.93 | 55.84 | 62.16 | 80.89 | 96.51 | 159.69 | 146.56 | 106.83 | 83.33 | 76.92 |
| MC KITTRICK | | 35.25 | | | | 68.18 | | | 132.08 | | 30.11 |
| MOJAVE | 40.14 | 44.16 | 52.27 | 58.44 | 77.44 | 114.41 | 146.92 | 150.75 | 74.09 | 38.76 | 40.58 |
| ONYX | 14.84 | 45.34 | 39.28 | 164.84 | | | 182.23 | 110.61 | 121.30 | 32.35 | 92.78 |
| RANDSBURG | | | | | | 73.46 | | | | | |
| RIDGECREST | 44.00 | 50.85 | 58.75 | 70.54 | 82.64 | 112.76 | 149.39 | 132.89 | 122.95 | 109.72 | 98.07 |
| ROSAMOND | 62.41 | 72.09 | 79.18 | 99.36 | 133.36 | 169.52 | 192.82 | 163.04 | 104.22 | 75.98 | 76.76 |
| SHAFTER | 63.53 | 63.51 | 63.75 | 67.71 | 88.03 | 122.78 | 176.15 | 161.42 | 118.40 | 87.21 | 85.36 |
| TAFT | 51.99 | 58.48 | 58.03 | 63.42 | 71.14 | 100.42 | 141.55 | 134.99 | 100.21 | 59.51 | 47.75 |
| TEHACHAPI | 68.63 | 75.84 | 86.89 | 102.14 | 127.54 | 168.57 | 189.11 | 162.81 | 134.84 | 109.90 | 106.82 |
| TUPMAN | 48.31 | 27.11 | | 66.29 | | 72.93 | | | | | |
| WASCO | 59.24 | 62.26 | 62.46 | 68.67 | 83.20 | 121.34 | 173.76 | 165.41 | 118.53 | 89.59 | 85.61 |
| WELDON | 64.34 | 82.95 | 67.09 | 76.19 | 104.33 | 112.11 | 111.10 | 165.60 | 129.36 | 46.37 | 49.79 |
| WOFFORD HGHTS | 66.29 | 66.25 | 81.59 | 90.39 | 110.26 | 156.70 | 192.52 | 161.75 | 156.99 | 106.39 | 132.20 |
| WOODY | | | 106.35 | 85.94 | | 251.62 | | 311.09 | 104.09 | | |
| **KERN COUNTY** | **$ 64.99** | **$ 70.46** | **$ 76.76** | **$ 90.66** | **$ 115.13** | **$ 160.08** | **$ 180.57** | **$ 157.17** | **$ 113.55** | **$ 84.28** | **$ 83.69** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-4**
**Commercial Property Sales (Kern County)**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | 7 | 4 | 7 | 5 | 9 | 3 | 3 | 3 | 5 | 6 | 1 |
| BAKERSFIELD | 191 | 223 | 266 | 279 | 350 | 334 | 242 | 223 | 146 | 99 | 38 |
| BODFISH | 1 | | 1 | | | 1 | | | 2 | 1 | |
| BORON | 2 | 2 | 2 | 3 | 6 | 2 | 3 | 1 | 3 | | |
| BUTTONWILLOW | 2 | 4 | 1 | | | 4 | 4 | 3 | 1 | | |
| CALIENTE | | | | | 3 | 1 | 1 | | | | |
| CALIFORNIA CITY | 3 | 3 | 2 | 4 | 9 | 7 | 4 | 2 | | 3 | 1 |
| CANTIL | | | | | | | | | | | |
| DELANO | 16 | 9 | 14 | 8 | 20 | 22 | 16 | 9 | 6 | 3 | 1 |
| EDWARDS | | | | | 1 | | | | | 1 | |
| FELLOWS | | | 1 | | | 2 | | | | | |
| FRAZIER PARK | 7 | 4 | 7 | 4 | 9 | 4 | 3 | 5 | 1 | 1 | |
| INYOKERN | 1 | | 1 | 2 | | 2 | 2 | | | | |
| JOHANNESBURG | | | 1 | | | | | | | | |
| KERNVILLE | 1 | 1 | 2 | 11 | 6 | 2 | 3 | 4 | 2 | 1 | 2 |
| LAKE ISABELLA | 4 | 5 | 6 | 4 | 9 | 7 | 5 | 7 | 2 | 1 | 2 |
| LAMONT | 3 | 8 | 8 | 3 | 8 | 3 | 8 | 4 | 4 | 4 | 1 |
| LEBEC | 1 | 1 | 3 | 2 | 5 | 4 | 1 | 1 | | | |
| LOST HILLS | | | 1 | 1 | 2 | 1 | | | 2 | 1 | |
| MARICOPA | | 1 | 1 | 3 | 2 | 1 | | 1 | 1 | | |
| MC FARLAND | 4 | 1 | 1 | 3 | 2 | 4 | 2 | 2 | 1 | 1 | |
| MC KITTRICK | | | | | | 1 | | | | | |
| MOJAVE | 6 | 3 | 5 | 3 | 5 | 15 | 12 | 2 | 3 | 1 | 1 |
| ONYX | | 1 | | | | 1 | | | 1 | | |
| RANDSBURG | | 1 | | 1 | 2 | | | | 1 | 2 | |
| RIDGECREST | 14 | 20 | 20 | 19 | 32 | 28 | 21 | 14 | 13 | 8 | 5 |
| ROSAMOND | 6 | 3 | 6 | 8 | 8 | 12 | 11 | 8 | 3 | 5 | |
| SHAFTER | 5 | 5 | 2 | 2 | 6 | 7 | 4 | 4 | | | 1 |
| TAFT | 9 | 5 | 12 | 16 | 19 | 23 | 23 | 13 | 7 | 4 | 2 |
| TEHACHAPI | 13 | 67 | 15 | 10 | 28 | 10 | 9 | 9 | 6 | 6 | |
| TUPMAN | | | | | 1 | | | 1 | | | |
| WASCO | 6 | 8 | 2 | 10 | 12 | 17 | 6 | 11 | 2 | 2 | |
| WELDON | | 1 | | 1 | 1 | 2 | 1 | 1 | 1 | 1 | |
| WOFFORD HGHTS | 2 | 6 | 4 | 3 | 14 | 3 | 4 | 5 | 2 | | |
| **KERN COUNTY** | **332** | **417** | **418** | **441** | **620** | **552** | **414** | **355** | **226** | **162** | **56** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-5**
**Median Commercial Property Sale Price**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | $ 35,000 | $107,500 | $ 55,250 | $ 150,000 | $ 48,000 | $ 35,000 | $ 81,000 | $380,000 | $200,000 | $120,000 | $230,000 |
| BAKERSFIELD | 134,000 | 150,000 | 150,000 | 180,000 | 235,000 | 325,000 | 315,000 | 341,500 | 367,500 | 204,250 | 190,000 |
| BODFISH | 120,000 | | 290,000 | | | 180,000 | | | 80,000 | 150,000 | |
| BORON | 127,000 | 45,250 | 50,000 | 62,500 | 56,000 | 98,000 | 150,000 | | 26,750 | | |
| BUTTONWILLOW | 1,775,000 | 373,500 | 55,000 | | | 1,400,000 | 425,000 | 755,000 | 85,000 | | |
| CALIENTE | | | | | 180,000 | | 165,000 | | | | |
| CALIFORNIA CITY | 42,500 | 176,750 | 174,000 | 45,500 | 135,000 | 130,000 | 251,250 | 350,000 | | 230,000 | |
| CANTIL | | | | | | | | | | | |
| DELANO | 530,000 | 230,000 | 150,000 | 200,000 | 250,000 | 271,750 | 544,500 | 97,500 | 297,500 | 226,500 | |
| EDWARDS | | | | | 119,000 | | | | | 723,000 | |
| FELLOWS | | | | | | 118,000 | | | | | |
| FRAZIER PARK | 100,000 | 210,000 | 235,250 | 127,500 | 175,000 | 96,750 | 400,000 | 512,000 | 340,100 | 380,000 | |
| INYOKERN | 100,000 | | | 107,000 | | | 190,000 | | | | |
| JOHANNESBURG | | | 110,000 | | | | | | | | |
| KERNVILLE | | | | 201,500 | 287,000 | 265,000 | 180,000 | 765,000 | 350,000 | | 754,500 |
| LAKE ISABELLA | 302,500 | 66,500 | 105,000 | 52,000 | 110,000 | 180,000 | 166,000 | 190,000 | 125,000 | 85,000 | 130,250 |
| LAMONT | 50,000 | 89,000 | 82,000 | 57,500 | 157,000 | | 90,000 | 247,000 | 134,500 | 125,000 | 225,000 |
| LEBEC | | 240,000 | 172,500 | 2,400,000 | 160,000 | 213,500 | | 221,000 | | | |
| LOST HILLS | | | | 40,000 | 530,000 | 1,854,000 | | | 240,000 | 900,000 | |
| MARICOPA | | 20,000 | 12,000 | 14,250 | 52,250 | | | | | | |
| MC FARLAND | 100,000 | 310,000 | 7,000 | 75,000 | 85,000 | 257,000 | 249,750 | 132,500 | 200,000 | | |
| MOJAVE | 394,000 | 175,000 | 60,000 | 160,000 | 50,000 | 125,000 | 380,000 | 350,000 | 300,000 | 650,000 | 350,000 |
| ONYX | | 105,000 | | | | 45,000 | | | 683,000 | | |
| RANDSBURG | | 63,000 | | | 110,000 | | | | | | |
| RIDGECREST | 95,000 | 68,500 | 77,500 | 125,000 | 225,000 | 200,000 | 240,000 | 150,000 | 96,000 | 375,000 | 370,000 |
| ROSAMOND | 128,250 | 189,000 | 153,500 | 90,000 | 190,000 | 290,000 | 600,000 | 285,000 | 225,000 | 450,000 | |
| SHAFTER | 66,250 | 106,000 | 95,000 | | 320,000 | 117,500 | | 415,000 | | | 395,000 |
| TAFT | 42,000 | 650,000 | 140,000 | 89,500 | 91,000 | 131,000 | 180,000 | 103,000 | 31,000 | 85,000 | |
| TEHACHAPI | 110,000 | 9,000 | 187,000 | 175,000 | 160,000 | 275,000 | 240,000 | 254,000 | 197,500 | 287,500 | |
| TUPMAN | | | | | | | | 55,000 | | | |
| WASCO | 91,000 | 65,000 | 515,000 | 145,000 | 150,000 | 181,750 | 350,000 | 343,500 | | 250,000 | |
| WELDON | | | | 150,000 | | 100,000 | 265,000 | 410,000 | | 130,000 | |
| WOFFORD HGHTS | 116,000 | 79,000 | 32,000 | 147,500 | 240,000 | 535,000 | 575,000 | 270,500 | 500,000 | | |
| **KERN COUNTY** | **$ 120,000** | **$105,000** | **$142,500** | **$ 162,500** | **$190,000** | **$ 270,000** | **$300,000** | **$305,000** | **$299,000** | **$218,500** | **$219,000** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-6**
**Median Commercial Property Sale Price per Square Foot**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BAKERSFIELD | $ 58.31 | $ 64.87 | $ 72.33 | $ 38.89 | $ 101.61 | $ 132.40 | $ 148.18 | $ 152.41 | $ 106.63 | $ 67.55 | $ 76.66 |
| CALIENTE | | | | | | | 91.67 | | | | |
| CALIFORNIA CITY | | | | 44.20 | | 199.92 | 128.62 | | | 169.99 | |
| DELANO | | | | | 52.88 | | 405.31 | | | 236.38 | |
| FRAZIER PARK | | | | 111.11 | | | | | | | |
| KERNVILLE | | | | 83.33 | | | 198.86 | | | | |
| LEBEC | | | | | 166.67 | | | | | | |
| MARICOPA | | 7.92 | | | | | | | | | |
| MC FARLAND | | | | | 52.99 | | | | | | |
| RIDGECREST | | | 41.92 | 67.15 | 82.64 | | | | | | |
| SHAFTER | | | | | | | | | | | |
| TEHACHAPI | 39.92 | | | | | | | 219.79 | 106.98 | | |
| WASCO | | | | | | 143.93 | | | | | |
| WOFFORD HGHTS | | | | | | 56.09 | | 144.23 | | | |
| **KERN COUNTY** | **$ 56.73** | **$ 64.26** | **$ 72.33** | **$ 38.89** | **$ 95.55** | **$ 130.99** | **$ 148.18** | **$ 152.20** | **$ 106.81** | **$ 68.48** | **$ 76.66** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-7**
**Industrial Property Sales (Kern County)**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | | | 1 | 2 | 1 | 5 | | 1 | 2 | 1 | |
| BAKERSFIELD | 50 | 57 | 63 | 62 | 89 | 97 | 70 | 48 | 37 | 18 | 11 |
| BORON | | | 1 | | | | | | | | |
| BUTTONWILLOW | | 1 | | | 1 | 1 | | | | | |
| CALIFORNIA CITY | | 3 | 2 | 1 | 1 | | 1 | 3 | | | |
| DELANO | 1 | 4 | 2 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | |
| FELLOWS | 3 | | | | 1 | 4 | 1 | 1 | | | |
| FRAZIER PARK | | | | | | | 1 | | | | |
| KERNVILLE | | | | | | | | | 1 | | |
| LAKE ISABELLA | 1 | 1 | | | 1 | 3 | | | 2 | | |
| LAMONT | 1 | 1 | | | | | | | | 1 | |
| LEBEC | 2 | 1 | | | 2 | | | 1 | | | |
| LOST HILLS | | | | | 1 | | | | | 1 | |
| MC FARLAND | 1 | | | | | 1 | | | 2 | | |
| MC KITTRICK | | | 1 | | | | | | | | |
| MOJAVE | | 1 | | | | 3 | | 2 | 1 | | 2 |
| RIDGECREST | 3 | 1 | 3 | 5 | 3 | 6 | 5 | 2 | 1 | 1 | 1 |
| ROSAMOND | | | | 1 | 1 | | | | 1 | | |
| SHAFTER | 3 | 2 | 8 | 4 | 8 | 8 | 4 | 1 | 2 | 2 | |
| TAFT | | | 3 | 1 | 2 | 3 | 4 | 3 | 1 | 2 | |
| TEHACHAPI | 1 | 4 | 1 | 1 | 2 | 1 | 1 | 3 | 1 | | |
| WASCO | 4 | 1 | | | 2 | 2 | | 4 | 1 | 3 | |
| WOFFORD HGHTS | | | | | 1 | | | | | | |
| **KERN COUNTY** | **80** | **89** | **94** | **80** | **128** | **149** | **104** | **85** | **56** | **32** | **15** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-8**
**Median Industrial Property Sale Price**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ARVIN | | | $300,000 | $355,000 | $550,000 | $ 235,000 | | $ 200,000 | $ 275,000 | $ 837,500 | |
| BAKERSFIELD | 116,000 | 160,000 | 200,000 | 217,250 | 200,000 | 325,000 | 500,000 | 500,000 | 600,000 | 482,500 | 167,500 |
| BUTTONWILLOW | | 55,000 | | | | 650,000 | | | | | |
| CALIFORNIA CITY | | 27,500 | 4,000 | 10,000 | 15,000 | | 35,000 | | | | |
| DELANO | 20,000 | 105,250 | 11,000 | | 71,250 | 99,000 | 125,000 | 150,000 | 121,000 | 3,850,000 | |
| FELLOWS | 91,000 | | | | 100,000 | 60,000 | | 550,000 | | | |
| KERNVILLE | | | | | | | | | | | |
| LAKE ISABELLA | 600,000 | 84,000 | | | 23,000 | 96,000 | | | 1,748,500 | | |
| LAMONT | 137,500 | 65,000 | | | | | | | | | |
| LEBEC | 42,000 | 300,000 | | | 305,000 | | | 465,000 | | | |
| LOST HILLS | | | | | | | | | | 250,000 | |
| MC FARLAND | | | | | | 130,000 | | | 100,000 | | |
| MC KITTRICK | | | 4,500 | | | | | | | | |
| MOJAVE | | | | | | 257,500 | | | 1,100,000 | | 115,000 |
| RIDGECREST | 175,000 | 385,000 | 140,000 | 10,000 | 582,500 | 85,750 | 182,500 | 395,000 | 1,828,000 | 350,000 | |
| ROSAMOND | | | | 62,000 | 390,000 | | | | 2,150,000 | | |
| SHAFTER | 197,272 | 160,000 | 72,500 | 184,500 | 123,000 | 530,000 | 402,500 | 250,000 | 742,500 | 525,000 | |
| TAFT | | | 12,000 | 76,500 | 88,000 | 64,250 | 180,000 | 1,334,500 | 100,000 | 205,000 | |
| TEHACHAPI | 310,000 | 53,500 | 995,000 | 375,000 | 77,000 | 1,450,000 | | 621,250 | 2,200,000 | | |
| WASCO | 6,000 | 20,000 | | | 222,000 | 156,000 | | 167,500 | | 50,545 | |
| WOFFORD HGHTS | | | | | 161,000 | | | | | | |
| **KERN COUNTY** | **$116,000** | **$138,500** | **$130,000** | **$202,000** | **$175,000** | **$ 282,500** | **$350,000** | **$ 460,000** | **$ 600,000** | **$ 350,000** | **########** |

Source: MDA DataQuick; DQNews.com

**Exhibit A-9**
**Median Industrial Property Sale Price per Square Foot**

| City | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Jan-Apr 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BAKERSFIELD | $ 67.45 | | | $ 91.07 | $ 39.89 | $ 273.37 | $ 248.53 | | | | |
| **KERN COUNTY** | **$ 67.45** | **$ 4.65** | | **$ 91.07** | **$ 39.89** | **$ 273.37** | **$ 248.53** | | | | |

Source: MDA DataQuick; DQNews.com

Los Angeles County Economic Development Corporation
444 S. Flower Street, 34th Floor
Los Angeles, CA 90071
(888) 4-LAEDC-1
www.LAEDC.org